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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/538,785	03/30/2000	Kenneth D. Ceola	A39.2-8766	8197

7590 12/11/2001

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EXAMINER

LOFDAHL, JORDAN M

ART UNIT	PAPER NUMBER
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3644

DATE MAILED: 12/11/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/538,785

Applicant(s)

CEOLA, KENNETH D.

Examiner

Jordan M Lofdahl

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 9/16/01.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 9/16/01 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurschner et al. (5497704).

As to claim 1, Kurschner et al. discloses a device comprising a magnetic sensing device for determining muzzle exit and spin rate (col. 4, lines 4-7) and it is inherent by the definition and function of a fuze that the fuze is armed on the occurrence of the two events. Applicants arguments have been considered, however, the range to burst capability of the fuze is read as an arming means.

As to claim 2, Kurschner discloses a device including a timer (44) and an apparatus programmed to arm the fuze only if at least two event occur in a predetermined order in a predetermined time window (col. 7, lines 48-50).

As to claim 3, disclosed is a device wherein the at least two events are muzzle exit, spin rate, and turns in a predetermined time window.

As to claim 4, Kurschner discloses a device where at least two events are muzzle exit (col. 4, lines 4-7) and predetermined number of spins (col. 7, lines 50-51).

As to claim 5, Kurschner discloses a device where at least two events are predetermined spin rates and predetermined number of spins (col. 7, lines 50-51 and claim 9).

As to claim 6, disclosed is a device wherein the at least two events are muzzle exit, a predetermined spin rate, and a predetermined number of turns.

Claim Rejections - 35 USC § 103

Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurschner et al. (5497704) further in view of Ziemba (3608494).

As to claim 1, Kurschner et al. discloses a device comprising a magnetic sensing device for determining muzzle exit (col. 4, lines 4-7) and the use thereof for performing various fuzing functions. Ziemba teaches a device comprising a means to determine the spin rate which in turn creates a means to arm the fuze (col. 2, lines 40-43). It would have

been obvious to one of ordinary skill in the art at the time the invention was made to comprise the device of Kurschner et al. employing spin rate determination as taught by Ziemba, to arm the fuze after an expected time.

As to claim 2, Kurschner discloses a device, as modified, including a timer (44) and an apparatus programmed to arm the fuze only if at least two event occur in a predetermined order in a predetermined time window (col. 7, lines 48-50).

As to claim 3, disclosed is a device, as modified, wherein the at least two events are muzzle exit, spin rate, and turns in a predetermined time window.

As to claim 4, Kurschner discloses a device, as modified, where at least two events are muzzle exit (col. 4, lines 4-7) and predetermined number of spins (col. 7, lines 50-51).

As to claim 5, Kurschner discloses a device, as modified, where at least two events are predetermined spin rates and predetermined number of spins (col. 7, lines 50-51 and claim 9).

As to claim 6, disclosed is a device, as modified, wherein the at least two events are muzzle exit, a predetermined spin rate, and a predetermined number of turns.

Claims 7-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurschner et al. (5497704).

As to claim 7, the limitations of claim 2 are disclosed as described above. Kurschner discloses a device including a sensor (20) capable of determining set back where the fuze is only armed if setback occurs and the at least two events occur in a predetermined order.

As to claim 8, the limitations of claim 7 are disclosed as described above. Kurschner discloses a device comprising a fuze which is armed only if muzzle exit occurs within a predetermined time window. But not disclosed is the time window predetermined from setback. It would have been obvious to one having ordinary skill in the art at the time the invention was made to comprise the predetermined time window from setback since it has been held that discovering the optimum or workable ranges involves only routine skill in the art.

As to claim 9, the limitations to claim 1 are disclosed as described above. Not disclosed is the fuze being armed if the spin rate is between a predetermined minimum and maximum spin rate within a predetermined time window. It would have been obvious to one having ordinary skill in the art at the time the invention was made to arm the fuze between a predetermined minimum and maximum spin rate within a predetermined time

window since it has been held that discovering the optimum or workable ranges involves only routine skill in the art.

Claims 7-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurschner et al. (5497704) and further in view of Ziemba.

As to claims 7-9, Kurschner et al. in view of Ziemba discloses all the limitations as listed above.

As to claims 10-14, the method steps of the instant claim are readily apparent during the operation of the device of Kurschner et al. and Kurschner et al. in view of Ziemba.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 3644

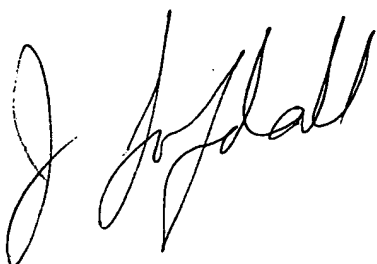
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

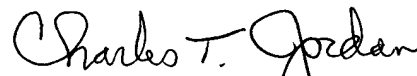
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lewis et al. (4072108), Cornett (4483190) and Cutler et al. (6295931) all disclose related devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan M Lofdahl whose telephone number is 703.605.1217. The examiner can normally be reached on 7-5 M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles T Jordan can be reached on 703.306.4159. The fax phone numbers for the organization where this application or proceeding is assigned are 703.305.7687 for regular communications and 703.305.7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.306.4180.




CHARLES T. JORDAN
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